

REMARKS

Reconsideration of the present application is respectfully requested.

Claims 1, 3, 6-10, 19-20, 22-27, 29-34, and 36-77 are pending and stand rejected. In this response, no claim has been canceled or amended. No new matter has been added.

Claims 1, 3, 6-9, 19-20, 22-27, 29-34, 36-40, 42-46, 48,52, 54-58, 60-64, 66-70, 72-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,812,527 of Kline et al. ("Kline") in view of U.S. Patent No. 6,411,617 of Kilkki et al. ("Kilkki"). Claims 10, 41, 47, 53, 59, 65, and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kline in view of Kilkki and published U.S. patent application No. 2002/3385567 of Ku et al. ("Ku"). Applicant hereby reserves the right to swear behind Kilkki and Ku in the subsequent prosecution of the present application.

It is respectfully submitted that the currently pending claims include limitations that are not disclosed or suggested by the cited references, individually or in combination. Specifically, independent claim 1 recites as follows:

1. A network switch having an asynchronous mesh to transfer data from ingress interfaces to egress interfaces, the ingress interfaces to receive data from external sources and to selectively schedule and asynchronously transmit the data across the asynchronous mesh to the egress interfaces, the egress interfaces to receive data from the asynchronous mesh and to schedule and transmit the data to external destinations, wherein one or more of the N ingress interfaces segregates incoming data into queues based on a service class identifier.

(Emphasis added)

Independent claim 1 includes an asynchronous mesh to transfer data from ingress interfaces to egress interfaces. The ingress interfaces schedule and asynchronously transmit the data to the egress interfaces and the egress interfaces schedule and transmit the data to the

external destinations, where the ingress interfaces segregate incoming data into queues based on a service class identifier (e.g., priority identifier associated with the packets). The above limitations are absent from the cited references, individually or in combination.

In the Office Action, the Examiner acknowledged that Kline does not expressly set forth the switch fabric is an asynchronous mesh. However, the Examiner maintained that since Kline carry ATM packets and there is a scheduler in the egress of the switch, the switch fabric is implied to be an asynchronous mesh (see, 12/2/2003 Office Action, page 3). Applicant respectfully disagrees. An ATM packet is a packet conforming to an ATM protocol, which may be transmitted over an ATM network. However, it is respectfully submitted that such an ATM packet might not necessarily be transmitted asynchronously, particularly, within a switch fabric. It is respectfully submitted that nowhere in Kline suggests transmitting data asynchronously within the switch fabric.

Rather, Kline relies on a scheduler 280 and 208 located in the egress to transmit a request to the ingress in order to enable the ingress to transmit packets of data to the egress. Specifically, Kline states:

“In general, the scheduling algorithm ensures that the QoS guarantees are met for all VCs of the many diverse service categories. Each cell cycle, the Scheduler 280 selects one of the active VCs, and generates a cell request 222 to the Ingress Cell Memory 206 of the appropriate Ingress Switch Port. The request is usually accepted, causing the Ingress Switch Port to read the requested ATM cell from the cell buffer of the addressed per-VC queue in Cell Memory 206 and send it to the Egress Switch Port, via the Switch Fabric 154. If the request is not accepted due to Switch Fabric 154 congestion (this can be designed to occur with very low probability, or with zero probability), then the Scheduler 280 will re-schedule the event and request the same cell again in the next cell cycle.”

(Kline, Fig. 6, col. 20, lines 43 to 54, emphasis added).

That is, the ingress of Kline only transmits data over to the egress upon receiving a cell request 222 from the egress. It is respectfully submitted that such transmissions are typically synchronous transmissions, rather than asynchronous transmissions.

In contrast, the present invention as claimed includes an ingress to schedule and asynchronously transmit data to the egress using, for example, an ingress scheduler and an ingress buffer located in the ingress, and an egress scheduler and an egress buffer located in the egress, as recited in claim 2. Although the Examiner contended that the egress of Kline includes an egress scheduler 280 and 208, there is no mention or suggestion in Kline that the ingress performs scheduling and asynchronously transmission of data. Given the structure of the Kline as discussed above, it appears that the ingress of Kline is unable to perform asynchronous transmissions because it lacks the mechanisms in the ingress to perform such actions.

It is respectfully submitted that Kilkki and Ku also fail to disclose or suggest the limitations set forth above. With respect to Ku, Ku was filed after the filing date of the present application. Thus, only the disclosure in the provisional application to which Ku claims the priority may be used as a reference against the present application. Nevertheless, it is respectfully submitted that Ku still fails to disclose or suggest the limitations set forth above.

Furthermore, there is no suggestion within the cited references to combine Kline with Kilkki and Ku. Even if they were combined, such a combination still lacks the limitations set forth above. Therefore, for the reasons discussed above, it is respectfully submitted that independent claim 1 is patentable over the cited references.

Similarly, independent claims 19, 22-27, 29-34, and 36 include limitations similar to those recited in claim 1. Thus, for the reasons similar to those discussed above, independent claims 19, 22-27, 29-34, and 36 are patentable over the cited references.

The rest of the claims depend from one of the above independent claims, thus include all of the distinct features of the respective independent claim, and therefore, for the reasons similar to those discussed above, are patentable over the cited references. Withdrawal of the rejections is respectfully requested.


In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 3/1/2004


Kevin G. Shao
Attorney for Applicant
Reg. No. 45,095

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1026
(408) 720-8300